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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,394	05/25/2001	Leonard S. Hand	6169-200	4207

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EXAMINER	
ZHOU, TING	
ART UNIT	**PAPER NUMBER**
2173	

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/865,394	HAND ET AL.	
	Examiner	Art Unit	
	Ting Zhou	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,6-8,10 and 12-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,6-8,10 and 12-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The Request for Continued Examination (RCE) filed on 5 January 2006 under 37 CFR 1.53(d) based on parent Application No. 09/865,394 is acceptable and a RCE has been established. An action on the RCE follows.

2. The amendments filed on 8 December 2005, submitted with the filing of the RCE have been received and entered. Claims 1-2, 4, 6-8, 10 and 12-20 as amended are pending in the application.

Claim Objections

3. Claim 10 is objected to because of the following informalities: Claim 10 does not end with an appropriate punctuation mark. Each claim should end with a period. See MPEP 608.01(m). Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 4, 6-8, 10 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chari et al. U.S. Patent 6,046,742 (hereinafter "Chari") and Jancke et al. U.S. Patent 5,764,913 (hereinafter "Jancke").

Referring to claims 1 and 7, Chari teaches a method and machine readable storage comprising obtaining from a display map, at least one reference to at least one node, wherein each node is associated with a display element displayable in the display map (the management window displays a plurality of nodes, or system components associated with display elements, or icons on the map window) (Chari: column 4, lines 41-58, column 6, lines 19-33 and column 10, line 63 – column 11, line 35; this is further shown in Figure 6), and wherein each node has a plurality of selectively presentable attributes (the nodes of the system, i.e. the displayed icons representing system components in the left hand side of the System Management Window 600 can be selected to present, or display, the associated attributes, such as children components associated with the parent node, which are selectively displayed via expanding the parent node) (Chari: column 11, line 61 – column 12, line 32, column 13, lines 16-37 and column 14, lines 49-63; this is further shown in Figure 24), and wherein each node represents a component in a complex heterogeneous system (the nodes are components in a computer network) (Chari: column 4, lines 41-58 and column 8, line 65 - column 9, line 4), and wherein each display element is capable of simultaneously displaying a plurality of attributes of an associated node (the nodes, or devices represented by the icons have associated forms with a plurality of attributes; for example, as shown in Figure 16, the forms displaying a plurality of attributes, or variables for a selected icon, or display element is displayed on the right-hand side of the interface; a similar form displaying a plurality of attributes is shown in Figures 14 and 17)

(Chari: column 12, lines 6-18 and column 13, lines 56-60); receiving at least one data metric from the component (users can browse through the MIB-defined variables, or nodes, which represent data concerning all the hardware and software components in a computer network; the parameters representing the components are organized into hierarchical levels, as shown in Figure 6; users can display forms associated with variables and change the value of the variables) (Chari: column 6, lines 28-32 and column 14, lines 49-63), converting the at least one data metric into an updated value and providing an updated value to the display map, the display map updating the display element in the display map to reflect the updated value (modifying one of the operational parameters representing a component and updating the status of the component corresponding to the modification; users can update a data metric value, or variable, via input on the displayed form of the display element, i.e. the forms containing the component variable parameters are updated on the display as the user enters a variable value; after the user updates the display map with the newly entered variable value, the MIB manager implements the user's changes) (Chari: column 6, lines 62 - column 7, line 27, column 14, line 49 – column 15, line 5 and column 20, lines 54-58), wherein the obtaining, receiving, converting and providing steps are performed within a software agent (SNMP agent), wherein the software agent is a platform-independent software object (the network can contain many servers connected to the network, and each network is represented by a SNMP agent, which is a software agent, that acts as an intermediary between the server components and the network; the SNMP agent receives requests for data from the SNMP manager, retrieves the corresponding data, and displays it on the display map; the data could be one of the plurality of operational parameters about different components in the network) (Chari: column 2, lines 3-14, column 6, line 62 - column 7, line 25, column 9,

lines 34-42 and column 13, lines 24-37), and wherein the display map simultaneously displays the display elements in a planar fashion (as shown in Figure 6 for example, the display elements, or icons representing the system components are displayed in a two-dimensional plane) (Chari: column 4, lines 41-58 and Figure 6). However, although Chari teaches that each attribute is presented in one of a plurality of pre-selected visual formats (i.e. an icon image displayed next to and associated with each node) (Chari: Figure 14 for example), Chari fails to explicitly teach wherein each visual format corresponding to a different discrete quantized value. Jancke teaches the display of a graphical user interface comprising a hierarchical display of nodes similar to that of Chari. In addition, Jancke further teaches wherein each attribute is alternately presented in one of a plurality of pre-selected visual formats, each visual format corresponding to a different discrete quantized value (each of the nodes on the display is accompanied by an individual operational state icon that takes one of a plurality of different discrete forms, or values; for example, the state indicators can be of one of the eight values shown in Figure 4) (Jancke: column 2, lines 42-60 and column 3, lines 7-55). It would have been obvious to one of ordinary skill in the art, having the teachings of Chari and Jancke before him at the time the invention was made, to modify the display map with selectively displayable hierarchical nodes of Chari to include the display of status nodes in a visual format corresponding to discrete quantized values of Jancke. One would have been motivated to make such a combination in order to provide a concurrent and robust operational state indicator that allows users to monitor and dynamically update the status of computer networks.

Referring to claims 2 and 8, Chari, as modified, teach using the updated value for computing an indicator for representing at least one attribute of the node and displaying the

computed indication on the display map within the display element (as shown in Figure 17, the display element, or icon and associated variable values representing a system component comprises the display of an indicator, or fields on the form associated with the element, such as "Minimum Speed", "Alert Temperature", etc. representing updatable variables of the component).

Referring to claims 4 and 10, Chari teaches a method comprising providing, by request to a plurality of software agents (SNMP agents, each associated with one a plurality of servers) (Chari: column 7, lines 12-15), references to a plurality of nodes wherein each node is associated with a display element displayable in a display map (the management window displays a plurality of nodes, or system components associated with display elements, or icons on the map window) (Chari: column 11, line 61 – column 12, line 32, column 13, lines 16-37 and column 14, lines 49-63; this is further shown in Figure 24), wherein each node represents a component in a content delivery network (the nodes are components in a computer network) (Chari: column 4, lines 41-58 and column 8, line 65 - column 9, line 4) and wherein each display element is capable of simultaneously displaying a plurality of attributes of an associated node (the nodes of the system, i.e. the displayed icons representing system components in the left hand side of the System Management Window 600 can be selected to present, or display, the associated attributes, such as children components associated with the parent node, which are selectively displayed via expanding the parent node) (Chari: column 12, lines 6-18 and column 13, lines 56-60); each of the receiving agents, receiving at least one data metric from associated ones of the component (the SNMP agents receive information requests from the SNMP manager and the SNMP agents retrieve these information and display them on the display) (Chari: column 9, lines

34-42 and column 13, lines 24-37); each of the agents, computing at least one updated node value responsive to receiving the data metric and updating at least one of the display elements in the display map with the updated node values received from the agents (modifying one of the operational parameters representing a component and updating the status of the component corresponding to the modification; users can update a data metric value, or variable, via input on the displayed form of the display element, i.e. the forms containing the component variable parameters are updated on the display as the user enters a variable value; after the user updates the display map with the newly entered variable value, the MIB manager can call the SNMP manager to implement the user's changes, i.e. change the variable's value) (Chari: column 6, lines 62 - column 7, line 27, column 13, lines 24-37, column 14, line 49 – column 15, line 5 and column 20, lines 54-58), wherein the display map simultaneously displays the display elements in a planar fashion (as shown in Figure 6 for example, the display elements, or icons representing the system components are displays in a two-dimensional plane) (Chari: column 4, lines 41-58 and Figure 6). However, although Chari teaches that each attribute is presented in one of a pre-selected visual formats (i.e. an icon image displayed next to and associated with each node) (Chari: Figure 14 for example), Chari fails to explicitly teach each attribute being alternately presented in one of a plurality of pre-selected colors, each color corresponding to a different discrete quantized value. Jancke teaches the display of a graphical user interface comprising a hierarchical display of nodes similar to that of Chari. In addition, Jancke further teaches each attribute being alternately presented in one of a plurality of pre-selected colors, each color corresponding to a different discrete quantized value (each of the nodes on the display is accompanied by an individual operational state icon that takes one of a plurality of different

discrete forms, such as a green light, yellow light, red light, etc.) (Jancke: column 2, lines 42-60 and column 3, lines 7-55 and Figure 4). It would have been obvious to one of ordinary skill in the art, having the teachings of Chari and Jancke before him at the time the invention was made, to modify the display map with selectively displayable hierarchical nodes of Chari to include the display of status nodes in a visual format corresponding to discrete quantized values of Jancke. One would have been motivated to make such a combination in order to provide a concurrent and robust operational state indicator that allows users to monitor and dynamically update the status of computer networks.

Referring to claim 6, Chari teaches a system comprising a display map for displaying a plurality of display elements, each display element associated with a node (the management window displays a plurality of nodes, or system components associated with display elements, or icons on the map window) (Chari: column 4, lines 41-58, column 6, lines 19-33 and column 10, line 63 – column 11, line 35; this is further shown in Figure 6), wherein each display element represents at least one reported value for an attribute of the associated node (each of the node icons represents component values, or variables that can be selected and configured by the user) (Chari: column 11, line 61 – column 12, line 19 and column 14, lines 49-63), and wherein each display element is capable of simultaneously displaying a plurality of attributes of an associated node (the nodes, or devices represented by the icons have associated forms with a plurality of attributes; for example, as shown in Figure 16, the forms displaying a plurality of attributes, or variables for a selected icon, or display element is displayed on the right-hand side of the interface; a similar form displaying a plurality of attributes is shown in Figures 14 and 17) (Chari: column 12, lines 6-18 and column 13, lines 56-60); a plurality of components distributed

across a heterogeneous network (the nodes are components in a computer network) (Chari: column 4, lines 42-47 and column 8, line 65 - column 9, line 4); and a plurality of agents configured to acquire references to individual ones of nodes and obtain updated values for the nodes from data metrics obtained from associated ones of the components (the SNMP agents configured to receive information requests from the SNMP manager regarding values for components and the SNMP agents retrieve these information and display them on the display) (Chari: column 9, lines 34-42 and column 13, lines 24-37), the agents reporting the updated values to the nodes, the nodes responsively updating associated display elements (modifying one of the operational parameters representing a component and updating the status of the component corresponding to the modification; users can update a data metric value, or variable, via input on the displayed form of the display element, i.e. the forms containing the component variable parameters are updated on the display as the user enters a variable value; after the user updates the display map with the newly entered variable value, the MIB manager can call the SNMP manager to implement the user's changes, i.e. change the variable's value) (Chari: column 6, lines 62 - column 7, line 27, column 13, lines 24-37, column 14, line 49 – column 15, line 5 and column 20, lines 54-58), wherein the display map simultaneously displays the display elements in a planar fashion (as shown in Figure 6 for example, the display elements, or icons representing the system components are displays in a two-dimensional plane) (Chari: column 4, lines 41-58 and Figure 6). However, although Chari teaches that the display element is visually presented in a pre-selected visual format (i.e. an icon image displayed next to and associated with each node) (Chari: Figure 14 for example), Chari fails to explicitly teach that each visual format corresponding to a discrete quantized value. Jancke teaches the display of a graphical user

interface comprising a hierarchical display of nodes similar to that of Chari. In addition, Jancke further teaches display element is visually presented in a pre-selected visual format that corresponds to a discrete quantized value (each of the nodes on the display is accompanied by an individual operational state icon that takes one of a plurality of different discrete forms, or values; for example, the state indicators can be of one of the eight values shown in Figure 4) (Jancke: column 2, lines 42-60 and column 3, lines 7-55). It would have been obvious to one of ordinary skill in the art, having the teachings of Chari and Jancke before him at the time the invention was made, to modify the display map with selectively displayable hierarchical nodes of Chari to include the display of status nodes in a visual format corresponding to discrete quantized values of Jancke. One would have been motivated to make such a combination in order to provide a concurrent and robust operational state indicator that allows users to monitor and dynamically update the status of computer networks.

Referring to claims 12 and 17, Chari, as modified, teach the display map including a plurality of nodes (plurality of nodes shown on the left side of the display map in Figure 17), and wherein particular ones of the nodes receive updated values provided by a plurality of different software agents (modifying one of the operational parameters representing a component and updating the status of the component corresponding to the modification; users can update a data metric value, or variable, via input on the displayed form of the display element, i.e. the forms containing the component variable parameters are updated on the display as the user enters a variable value; after the user updates the display map with the newly entered variable value, the MIB manager can call the SNMP manager to implement the user's changes, i.e. change the

variable's value) (Chari: column 6, lines 62 - column 7, line 27, column 13, lines 24-37, column 14, line 49 – column 15, line 5 and column 20, lines 54-58).

Referring to claims 13, 15 and 18, Chari, as modified, teach a plurality of different agents (SNMP agents) receive at least one data metric from one of the components (modifying one of the operational parameters representing a component and updating the status of the component corresponding to the modification; users can update a data metric value, or variable, via input on the displayed form of the display element, i.e. the forms containing the component variable parameters are updated on the display as the user enters a variable value; after the user updates the display map with the newly entered variable value, the MIB manager can call the SNMP manager to implement the user's changes, i.e. change the variable's value) (Chari: column 6, lines 62 - column 7, line 27, column 13, lines 24-37, column 14, line 49 – column 15, line 5 and column 20, lines 54-58).

Referring to claims 14 and 19, Chari, as modified, teach for particular ones of the agents, at least one data metric comprises a plurality of data metrics, and wherein at least one updated node value comprises a plurality of updated node values, wherein the plurality of updated node values for the component are displayed within an associated one of the display elements (as shown in Figure 19, where the component node "FANS" and its associated data metric, or values, contain a plurality of nodes "FAN NUMBER 1", "FAN NUMBER 2", etc., each with their associated data metrics, or values; as a further example, each of the forms for selected nodes of the system can have a plurality of node values, or variables, such as "Minimum Speed", "Alert Temperature", "Shutdown Temperature", etc. that can be displayed and updated, as shown in Figure 17).

Referring to claim 16, Chari, as modified, teach a plurality of updated values associated with one of the components are displayed within one of display elements presented within the display map (Chari: column 6, lines 62-67 and column 7, lines 1-27 and column 20, lines 54-58, and further shown by the display of the values associated with the display element, or component node representing the component "FAN NUMBER 1" in Figure 19).

Referring to claim 20, Chari, as modified, teach identifying at least one display map parameter relating to at least one of the attributes and setting each node so that each associated display element is adjusted to present attributes in accordance with the at least one display map parameter (the display element, or icon displayed is adjusted in accordance with a display map parameter, such as user selection of the icon, causing sub-component icons to be displayed; for example, as shown in Figure 15, the display map parameter of a user selecting the "DIMM's" icon cause adjustment of the display elements such as the display of the sub-component icons "DIMM Number 1" – "DIMM Number 12"; as another example, Figure 16 shows that the display map parameter of a user selecting the "DIMM Number 1" icon relating to the attributes, or component variables values of the system component, causes the associated form containing user configurable variables for the system component to be presented on the display map) (Chari: column 11, line 24 – column 12, line 19).

Response to Arguments

5. Applicant's arguments with respect to claims 1-2, 4, 6-8, 10 and 12-20 have been considered but are moot in view of the new ground(s) of rejection.

6. In addition, the applicant argues that Chari does not expressly or inherently teach representing a node as a single object with multiple attributes (e.g. metric data) bound to the single object displayed. The examiner respectfully disagrees. As a first note, the examiner respectfully notes that the claims do not explicitly recite that the displayed attributes are *metric data* that are bound to a single object, but simply that a plurality of attributes are associated with each node. Chari teaches the display of nodes such as "Temperature Sensors", which can be expanded to display attributes associated with, or corresponding to the "Temperature Sensors" node, such as "Sensor Number 1", "Sensor Number 2", etc., as shown in Figure 20; furthermore, the attributes associated with the "Temperature Sensors" node can be hidden from view by collapsing the display of the node, as shown in Figure 22. Therefore, the examiner respectfully asserts that Chari teaches selectively displaying the plurality of associated attributes of a single node.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ting Zhou whose telephone number is (571) 272-4058. The examiner can normally be reached on Monday - Friday 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached at (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TZ

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PRIMARY EXAMINER